SINCE 1989

Li-ion UPS

EAST UPS
Guard
Power Well

EAST GROUP CO., LTD.

No.6 Northern Industry Road, Songshan Lake Sci&Tech
Industrial Park, Dongguan city, Guangdong, China (523808)
TEL: +86 769 22898802
Email: eastups@eastups.com
https://en.eastups.com/

EAST GROUP CO., LTD.
http: //www.eastups.com

COMPANY PROFILE

About Us

EAST Group Co., Ltd. established in 1989, is a global smart city & smart energy system solutions supplier and excellent listed company (stock code 300376), having registered capital of 2.3 billion CNY and a headquarter with 200,000 m2 manufacturing and R&D space in Dongguan city. We keep growing marketing and service network with more than 140 countries' part ners and customers spread around the world. We have been awarded Global Top 500 New Energy Enterprises, and won the 117th China Patent Excellence Award with more than 660 patents.

Our Products

EAST is ISO 9001: 2015 and ISO 14001: 2004 certified, and committed to providing green, energy-saving, stable, reliable and continuous power supply products and solutions. Our main products and services include:

1) UPS & Data center solutions
2) Solar inverters & PV energy solutions
3) Electric vehicle charging station
4) Energy storage & Smart micro-grid system
5) Stabilizer (AVR)
6) EPS (Emergency power supply)
7) Lead-acid maintenance-free battery

Our Team

EAST R&D team consists of 600 professional engineers and power experts.A Postdoctoral Scientific Research Workstation granted by the Nation al Ministry of Personnel, and four R & D and operation bases in Dongguan, Hefei, Kunshan and Nanjing city have been established, which constatnly bring in talent all over the world to join us.

Our Mission

Customer's satisfaction is our permanent pursuit. In order to consiently create maximum value for customers, we focus on our customers' market challenges and needs by providing excellent power supply solution and high quality products as well as best service, and giving top priority to meeting customer requirements to enhance their competitiveness and profitability.

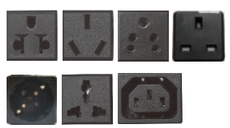
CONTENTS

EA900 Li (220V)

1 kVA ~ 3 kVA
PF 1.0

Features

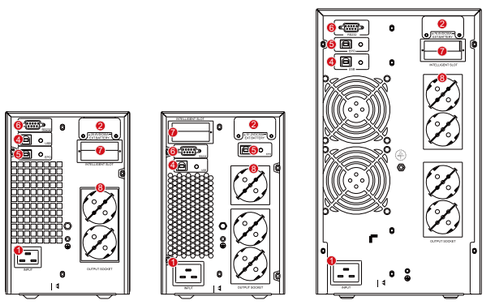
- High frequency on-line double conversion technology
- DSP (Digital signal processing) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 1.0
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 8h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)
- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function



Optional outlets

Rear Panel

1. AC input socket
2. Battery connector (Optional)
3. Fan
4. USB (Optional)
5. EPO (Optional)
6. RS232
7. Intelligent slot (Optional)
8. Output sockets



1KVAS (25.6V) 2KVAS (51.2V) 3KVAS (76.8V)

Specifications

MODEL	EA901	EA902	EA903
Capacity	1kVA / 1kW	2kVA / 2kW	3kVA / 3kW
INPUT			
Rated voltage	208 / 220 / 230 / 240 Vac		
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)		
Frequency	40 ~ 70 Hz (auto-sensing)		
Power factor	≥ 0.99		
Bypass voltage range	- 25% ~ +15% (settable)		
Total harmonic distortion (THDi)	≤ 6%		
OUTPUT			
Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)		
Voltage regulation	±1%		
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)		
Waveform	Sinusoidal		
Power factor	1.0		
Total harmonic distortion (THDv)	≤ 2% (linear load), ≤ 5% (non-linear load)		
Crest factor	3:1		
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms		
BATTERIES			
Battery type	Lithium iron phosphate battery		
DC voltage	25.6V (S)	51.2V (S)	76.8V (S)
Inbuilt battery	8×3.2V/8.7Ah	16×3.2V/8.7Ah	24×3.2V/8.7Ah
Charging current (max.)	Standard model:1A		
Recharge time	Standard model: 90% capacity restored in 8 hours		
SYSTEM			
Efficiency	≥ 90% (Mains mode)	≥ 91% (Mains mode)	≥ 92% (Mains mode)
	≥ 85% (Battery mode)	≥ 86% (Battery mode)	≥ 87% (Battery mode)
	≥ 95% (ECO mode)	≥ 96% (ECO mode)	≥ 97% (ECO mode)
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)		
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection		
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)		
Display	LCD + LED		
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1, IEC 62040-3		
OTHERS			
Operating temperature	0℃ ~ 40℃		
Storage temperature	-25℃ ~ 55℃ (without batteries)		
Relative humidity	0 ~ 95% (non-condensing)		
Altitude	≤ 1000 m, derating 1% for each additional 100 m		
IP rating	IP 20		
Noise level at 1m	≤ 50 dB		
Dimensions (W×D×H) (mm)	144×312×216	144×417×216	191×419×335
Packaged dimensions (W×D×H) (mm)	230×402×315	230×506×315	277×500×435
Net weight (kg)	9.4	12.9	18.3
Gross weight (kg)	10.4	14.3	19.9

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- S means standard model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

EA900RT Li (220V)

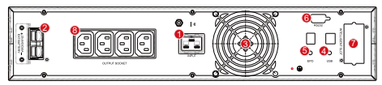
1 kVA ~ 3 kVA
PF 1.0

Features

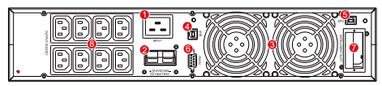
- High frequency on-line double conversion technology
- DSP (Digital signal processing) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 1.0
- Wide input voltage range (110 V ~ 300 Vac) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 8h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Hot-swappable battery
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)
- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function, MBS (External maintenance bypass switch)

Rear Panel

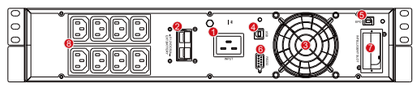
1. AC input socket
2. Battery connector (Optional)
3. Fan
4. USB (Optional)
5. EPO (Optional)
6. RS232
7. Intelligent slot (Optional)
8. Output sockets



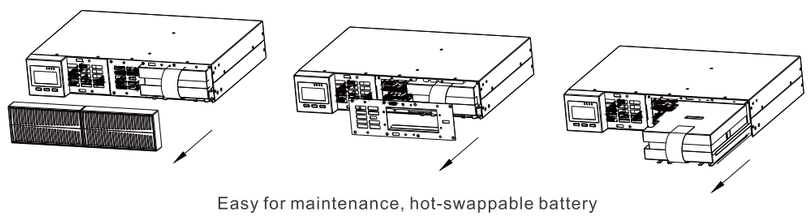
1KVASRT (25.6V)



3KVASRT (76.8V)



2KVASRT (51.2V)



Easy for maintenance, hot-swappable battery

Specifications

MODEL	EA901RT	EA902RT	EA903RT
Capacity	1kVA / 1kW	2kVA / 2kW	3kVA / 3kW
INPUT			
Rated voltage	208 / 220 / 230 / 240 Vac		
Voltage range	110 ~ 176 Vac (linear derating between 50% and 100% load); 176 ~ 280 Vac (no derating); 280 ~ 300 Vac (derating 50%)		
Frequency	40 ~ 70 Hz (auto-sensing)		
Power factor	≥ 0.99		
Bypass voltage range	-25% ~ +15% (settable)		
Total harmonic distortion (THDi)	≤ 6%		
OUTPUT			
Voltage	208 / 220 / 230 / 240 Vac (settable via LCD)		
Voltage regulation	± 1%		
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ± 0.1 Hz (battery mode)		
Waveform	Sinusoidal		
Power factor	1.0		
Total harmonic distortion (THDv)	≤ 2% (linear load); ≤ 5% (non-linear load)		
Crest factor	3:1		
Overload	105% ~ 125% for 1 min, 125% ~ 150% for 30 s, > 150% for 300 ms		
BATTERIES			
Battery type	Lithium iron phosphate battery		
DC voltage	25.6V (S)	51.2V (S)	76.8V (S)
Inbuilt battery	8×3.2V/8.7Ah	16×3.2V/8.7Ah	24×3.2V/8.7Ah
Charging current (max.)	Standard model:1A		
Recharger time	Standard model: 90% capacity restored in 8 hours		
SYSTEM			
Efficiency	≥ 90% (Mains mode)	≥ 91% (Mains mode)	≥ 92% (Mains mode)
	≥ 85% (Battery mode)	≥ 86% (Battery mode)	≥ 87% (Battery mode)
	≥ 95% (ECO mode)	≥ 96% (ECO mode)	≥ 97% (ECO mode)
Transfer time	Mains mode to battery mode: 0 ms Inverter mode to bypass mode: 4 ms (typical)		
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection		
Communications	RS232 (standard), USB / RS485 / dry contacts / SNMP (optional)		
Display	LCD + LED		
Standards	EN 62040-1, EN 62040-2, EN 61000-3-2, EN 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11, IEC 61000-2-2, IEC 62040-2, IEC 62040-1		
OTHERS			
Operating temperature	0℃ ~ 40℃		
Storage temperature	-25℃ ~ 55℃ (without batteries)		
Relative humidity	0~95% (non-condensing)		
Altitude	≤ 1000 m, derating 1% for each additional 100 m		
IP rating	IP 20		
Noise level at 1m	≤ 50 dB		
Dimensions (W × D × H) (mm)	440×316×88	440×430×88	440×560×88
Packaged dimensions (W×D×H) (mm)	545×428×194	545×560×201	545×690×201
Net weight(kg)	9	15.2	20.8
Gross weight(kg)	9.7	18.3	23.7

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 208 Vac.
- S means standard model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

EA900 Li (120V)

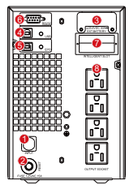
1 kVA ~ 3 kVA
PF 1.0

Features

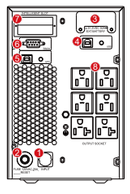
- High frequency on-line double conversion technology
- DSP (Digital signal processing) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 1.0
- Wide input voltage range (50 V ~ 150 V) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 8h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)
- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function

Rear Panel

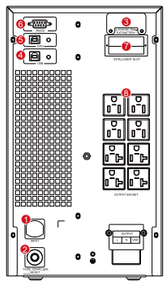
1. AC input socket
2. Overcurrent protection
3. Battery connector (Optional)
4. USB (Optional)
5. EPO (Optional)
6. RS232
7. Intelligent slot (Optional)
8. Output sockets



1KVAS (25.6V)



2KVAS (51.2V)



3KVAS (76.8V)

Specifications

MODEL	EA901	EA902	EA903
Capacity	1kVA / 1kW	2kVA / 2kW	3kVA / 3kW
INPUT			
Rated voltage	100 / 110 / 115 / 120 / 127 Vac		
Voltage range	50 ~ 80 Vac (linear derating between 50% and 100% load); 80 ~ 150 Vac (no derating)		
Frequency range	40 ~ 70 Hz (auto-sensing)		
Power factor	≥ 0.99		
Bypass voltage range	-25% ~ +15% (settable)		
Rated input frequency	50 Hz / 60 Hz (auto-sense)		
THDi	≤ 6%		
OUTPUT			
Voltage	100 / 110 / 115 / 120 / 127 Vac (settable via LCD)		
Voltage regulation	± 1%		
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ±0.1 Hz (battery mode)		
Waveform	Sinusoidal		
Power factor	1.0		
THDv	≤ 2% (linear load), ≤ 5% (non-linear load)		
Crest factor	3:1		
Overload	108% ~ 127% for 1 min; 127% ~ 150% for 30 s; >150% for 100 ms		
BATTERIES			
Battery type	Lithium iron phosphate battery		
DC voltage	25.6V (S)	51.2V (S)	76.8V (S)
Inbuilt battery	8×3.2V/8.7Ah	16×3.2V/8.7Ah	24×3.2V/8.7Ah
Charging current (max.)	1 A		
Recharge time	Standard model: 90% capacity restored in 8 hours		
SYSTEM CONTROL AND COMMUNICATIONS			
Effciency	≥ 90% (Mains mode)		
	≥ 85% (Battery mode)		
	≥ 95% (ECO mode)		
Transfer time	Mains mode to battery mode: 0ms; Inverter mode to bypass mode: 4ms (typical)		
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection		
Communication port	RS232 (standard); USB / RS485 / SNMP / dry contacts(options)		
Display	LCD+LED		
ENVIRONMENTAL			
Operating humidity	0 ~ 95 % RH @ 0 ~ 40°C (non-condensing)		
Storage temperature	-25°C ~ 55°C (exclude batteries)		
Operating altitude	≤ 1000m, above 1000m, derating 1% for each rising 100m		
Protection class	IP20		
Noise level	≤ 50dB		
OTHERS			
Dimensions (W × D × H) (mm)	144×315×211	144×450×211	191×437×335
Packaged dimensions (W × D × H) (mm)	230×402×315	230×536×315	277×500×435
Net weight (kg)	8.3	14.1	20
Gross weight (kg)	9.3	15.5	21.5

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 100Vac.
- S means standard model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

EA900RT Li (120V)

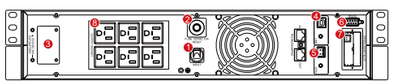
1 kVA ~ 3 kVA
PF 1.0

Features

- High frequency on-line double conversion technology
- DSP (Digital signal processing) control technology
- Active power factor correction (APFC), input power factor up to 0.99
- Output power factor 1.0
- Wide input voltage range (50 V ~ 150 V) and frequency range (40 ~ 70 Hz)
- Auto sensing frequency
- 50 / 60 Hz frequency conversion
- Cold start
- Rear ventilation design and variable speed fan
- Effective software and hardware protection
- Quick and stable charging, 90% capacity restored in 8h (standard model UPS)
- Linear derating in low voltage input reducing battery discharging times
- Settable delayed start when power is restored
- Advanced battery management (ABM)
- Multiple functions settable via LCD: output voltage, EOD, auto-start, bypass mode
- Multi-platform communications: RS232 (standard), USB / RS485 / SNMP / dry contacts (optional)
- Optional USB, RS485 card, AS400 dry contacts, SNMP card, SMS alarms, EPO function; MBS (External maintenance bypass switch)

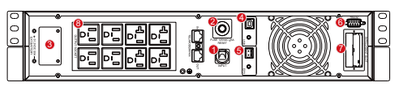
Rear Panel

1. AC input socket
2. Overcurrent protection
3. Battery connector (Optional)
4. USB (Optional)
5. EPO (Optional)
6. RS232
7. Intelligent slot (Optional)
8. Output sockets

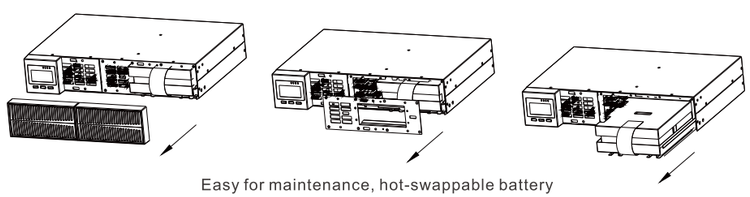


1KVASRT (25.6V)

3KVASRT (76.8V)



2KVASRT (51.2V)



Easy for maintenance, hot-swappable battery

Specifications

MODEL	EA901RT	EA902RT	EA903RT
Capacity	1kVA / 1kW	2kVA / 2kW	3kVA / 3kW
INPUT			
Rated voltage	100 / 110 / 115 / 120 / 127 Vac		
Voltage range	50 ~ 80 Vac (linear derating between 50% and 100% load); 80 ~ 150 Vac (no derating)		
Frequency range	40 ~ 70 Hz (auto-sensing)		
Power factor	≥ 0.99		
Bypass voltage range	-25% ~ +15% (settable)		
Rated input frequency	50 Hz / 60 Hz (auto-sense)		
THDi	≤ 6%		
OUTPUT			
Voltage	100 / 110 / 115 / 120 / 127 Vac (settable via LCD)		
Voltage regulation	± 1%		
Frequency	45 ~ 55 Hz or 55 ~ 65 Hz (synchronized range); 50 / 60 Hz ±0.1 Hz (battery mode)		
Waveform	Sinusoidal		
Power factor	1.0		
THDv	≤ 2% (linear load), ≤ 5% (non-linear load)		
Crest factor	3:1		
Overload	108% ~ 127% for 1 min; 127% ~ 150% for 30 s; >150% for 100 ms		
BATTERIES			
Battery type	Lithium iron phosphate battery		
DC voltage	25.6V (S)	51.2V (S)	76.8V (S)
Inbuilt battery	8×3.2V/8.7Ah	16×3.2V/8.7Ah	24×3.2V/8.7Ah
Charging current (max.)	1 A		
Recharge time	Standard model: 90% capacity restored in 8 hours		
SYSTEM CONTROL AND COMMUNICATIONS			
Effciency	≥ 90% (Mains mode)		
	≥ 85% (Battery mode)		
	≥ 95% (ECO mode)		
Transfer time	Mains mode to battery mode: 0ms; Inverter mode to bypass mode: 4ms (typical)		
Protections	Short-circuit, overload, overtemperature, battery discharge protection and fan testing protection		
Communication port	RS232 (standard); USB / RS485 / SNMP / dry contacts(options)		
Display	LCD+LED		
ENVIRONMENTAL			
Operating humidity	0 ~ 95 % RH @ 0 ~ 40°C (non-condensing)		
Storage temperature	-25°C ~ 55°C (exclude batteries)		
Operating altitude	≤ 1000m, above 1000m, derating 1% for each rising 100m		
Protection class	IP20		
Noise level	≤ 50dB		
OTHERS			
Dimensions (W × D × H) (mm)	440×316×88	440×468×88	440×560×88
Packaged dimensions (W × D × H) (mm)	545×428×194	545×592×198	545×690×201
Net weight (kg)	9.2	12.8	18
Gross weight (kg)	9.9	16.3	21

- Derate capacity to 70% in CUCF mode and to 90% when the output voltage is adjusted to 100Vac.
- S means standard model.
- All specifications are subject to change without notice.
- Custom-made specifications are acceptable.

Li-ion UPS

6 kVA ~ 40 kVA

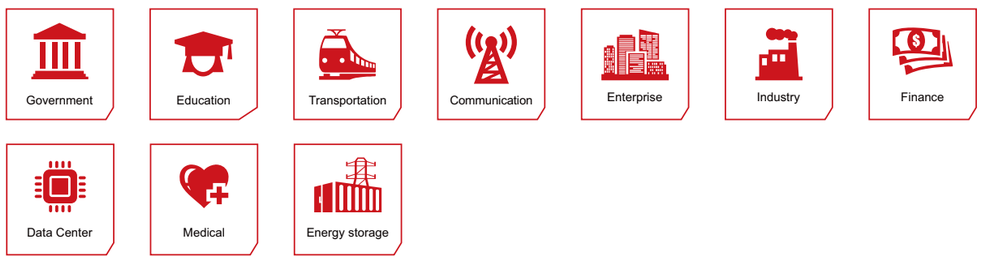
Product Introduction

All-in-one solution including Rack Mount UPS, S³ Lithium-ion Battery and Distribution Unit. The solution has several key advantages as follow:

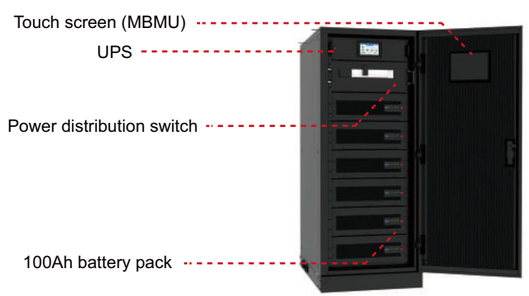
- All in one design, simple and compact, no additional battery cabinet and distribution box, small footprint
- Touch screen monitoring, covering UPS+S³, convenient for users to quickly query information
- 6~40K rack UPS are available to give you the most reliable backup power
- Built-in lithium battery module to provide long-term backup power and the hot-swappable design for easy maintenance

Application

Government, education, transportation, communication, inance, data center, medical, enterprise, industry, etc.



Product Configuration



Product Features

UPS - Green Power

- AC/AC efficiency up to 99%, less operation cost and more energy saving.
- Output power factor up to 1.0 (optional), more powerful to connect more critical loads.
- Input PF >0.99 and THDi <3%, less pollution and lower TCO.

10~40kVA
Built-in rack UPS

Lithium-ion Battery - Safe

- **Electrical and physical double isolation**
  - -Reduces the fault scope to an effective space without diffusion
  - -Port zero voltage, no risk of short circuit shock
- **Module fire protection**
  - -Can quickly, accurately and effectively detect and extinguish the fire source in the initial stage
- **Failure module exit automatically**
  - -Modular parallel design, failure module exit automatically, will not affect the system. Other modules can work normally. Improve the reliability

Lithium-ion Battery - Smart

- **Module design, plug and play**
  - -5mins maintenance, reduce the OPEX cost
- **Flexible for expansion**
  - -Module design, can expand the capacity of modules or cabinets.
  - -Reduce the CAPEX cost

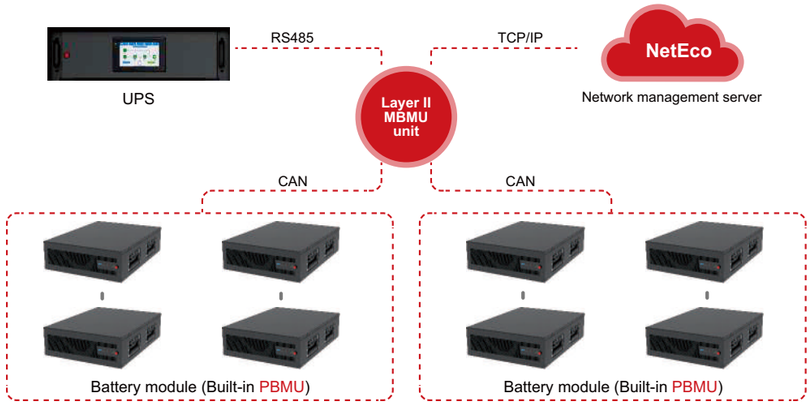
Module level
expansion battery

Lithium-ion Battery - Simple

- **Intelligent current equalization**
  - -Can be used with new and old batteries
  - -Can be used with lithium-ion batteries from different suppliers
- **Intelligent voltage equalization**
  - -Intelligent voltage equalization module, no barrel effect
  - -Prolong the backup time, improve battery utilization
- **Adaptive SOC management**
  - -Intelligent charge and discharge management, avoid over charge and over discharge
  - -Detects the battery internal temperature. Improve the safety and reduce the OPEX cost

Featured Two-layer BMS Architecture

The adopted two-layer BMS architecture (PBMU/MBMU) ensures the reliability of lithium-ion battery system from cell, module and system layers.



Battery Configuration Table

1. 100Ah battery module for short time power backup

Battery module (mins) / UPS capacity (kW)	1	2	3	4	5	6
6	44	87	131	175	219	263
10	/	50	75	100	125	150
20	/	/	38	50	63	75
30	/	/	/	38	44	50
40	/	/	/	/	/	40

Technical Parameters (Battery)

Battery	Lithium Battery
Battery rated voltage (V)	51.2
Battery capacity (Ah)	100
Max. energy (kWh)	5.12
DC/DC rated output power (kW)	7.5
Dimensions (W×D×H) (mm)	440x720x160
Weight (kg)	51±1
Rated output voltage (V)	70~300
SOC accuracy	≥95%

● All speciications are subject to change without notice.

Technical Parameters (All-in-one Solution)

Rated Power		6K	10K	10K	20K	30K	40K
INPUT							
Phase		1:1		3:3			
Voltage (Vac)[1]		110~288		190~478			
Frequency (Hz)		40~70		40~70			
Power Factor		≥0.99					
THDi		<3% (linear load)					
OUTPUT							
Phase		1:1		3:3			
Capacity (kVA)		6	10	10	20	30	40
AC/AC Efficiency (Max.)		95.5%		96%			
Power Factor		0.99		0.99			
Voltage (Vac)[2]		208/220/230/240±1%		380/400/415±1%			
Frequency (Hz)		40~70		40~70			
THDv		THD <1% (linear load), THD <4% (non-linear load)		THD <1% (linear load), THD <3% (non-linear load)		THD <1% (linear load), THD <3% (non-linear load)	
Transfer Time (ms)		0					
Overload		115%~130%: 10min; 130%~150%: 30s; >150%: 500ms		115%~125% load: 10min, 125%~150% load: 1min, >150% load: 200ms			
GENERAL							
Communication Interface		RS232, EPO, USB (slot) (SNMP, RS485+dry contact are optional in slot)		RS485+EPO (RS232+Dry contact, SNMP are optional in slot)			
Display		LCD					
Alarm		Low battery, abnormal AC input, UPS failure, etc.					
Protection		Low battery, overload, short-circuit and over temperature, etc.					
Noise (dB)		<55					
Working Temperature (°C)		-5~40					
Relative Humidity		0 ~ 95%, no condensation					
Dimension (W×D×H)(mm)	UPS	440×580×88 (2U)		440×660×130 (3U)		440×660×130 (3U)	
	Cabinet	600×900×(1200/1500/1700)					
Weight (kg)	UPS	12	14	20		34	
	Cabinet*	120					

● Without built-in UPS and batteries.